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DELPHI

DEPT. OF TRANSPORTATION
DOCKETS

Product Regulatory Affairs
Michael J. McKale
Manager

2004 APR -9 P 2: 57

GL04-005a-001

March 26, 2004

National Highway Traffic
Safety Administration
Attn: Dr. Jeffrey W. Runge M.D.,
Administrator
400 Seventh Street, S.W.
Washington, D.C. 20590

NHTSA-04-17539-1

In Re: Petition for Inconsequential Noncompliance, FMVSS 106 § 5.2.4 and § 5.2.4.1

Dear Dr. Runge:

Pursuant to the requirements of 49 CFR Part 556, Delphi Corporation hereby petitions for an exemption from the notification and remedy requirements of the Motor Vehicle Safety Act Chapter 301, for failure to comply with the labeling requirements of FMVSS 106 § 5.2.4 and § 5.2.4.1 as required for replacement equipment. Between the start of production in January 2001 and February 20, 2004, 1,534 Brake Hose Assemblies were sold as replacement equipment. None of these assemblies had the manufacturer's logo embossed on the fitting.

On March 1, 2004 Delphi notified Mr. Kenneth Weinstein of the Office of Safety Assurance of the National Highway Traffic Safety Administration (NHTSA) that Delphi had determined that a Noncompliance with the above requirements of FMVSS 106 existed. In the same notification Delphi indicated that it would be sending a Petition to request a determination of an Inconsequential Noncompliance under a separate letter within the 30-day allotted time constraint. (Copy of the Notification can be found in Attachment I.)

Delphi Corporation is located at 5825 Delphi Dr., Troy, MI 48098 and is incorporated in the State of Delaware.

Background

Delphi manufactures Brake Hose Assemblies for both vehicle manufacturers for placement in new vehicles and the aftermarket as replacement equipment. On all assemblies manufactured prior to January 2001, at least one of the fittings found on each end of all the Brake Hose Assembly that we manufactured was made of steel. The steel fitting had the requisite logo embossed on the surface during a cold heading process. Brass fittings, on the other hand, did not have the logo embossed on them because there was some trepidation on the part of manufacturing engineers that, due to the ductility of this material, the working part of the fitting might be affected.

Beginning in January 2001 Delphi began to manufacture a Brake Hose Assembly, which had a brass fitting at both ends. From that time until recently, no one at Delphi recognized that there was a compliance issue for those assemblies that were sold as replacement equipment in the aftermarket. What Delphi did realize was that the part did not meet a requirement from our customer. The Delphi engineer initiated the paperwork in February 2001 to cause the logo to be placed on the raw brass stock on a non-machined surface prior to its being shipped to Delphi in order to meet the customer requirement. This alleviated the concern that a part that would be embossed after machining might be adversely affected. Unfortunately the engineer was sent to another assignment before the change was implemented, and did not return to his previous position until the fall of 2003. A couple of months later, he recognized that the change that he had written had not been incorporated, and followed up with Purchasing to ensure that the change was implemented.

In the interim, General Motors requested parts for a NHTSA compliance test. During the ensuing conversation, the Delphi engineer mentioned the issue about the absent logo and the potential for a noncompliance was discussed for those parts that are placed in the aftermarket. An investigation was immediately commenced, and on February 25, 2004, Delphi's Chief Technical Officer, made a determination that a non-compliance existed.

Rationale for a Determination of Inconsequential Non-compliance

Delphi believes that the absence of our logo on the 1,534 parts that have been sold as replacement parts is inconsequential to motor vehicle safety for the following reasons:

1. All of the Brake Hose Assemblies in question meet the functional performance requirements of the standard for the hose, the fittings, and the assembly. Therefore, these Brake Hose Assemblies will perform exactly as intended in the vehicle and will not affect, in any way, the safety of the vehicle.
2. In this particular case, the label on the Brake Hose Fitting is redundant to the label on the Brake Hose itself when the manufacturer of the hose and the fitting are the same manufacturer. FMVSS 106 § 5.2.2 states that:

Each hydraulic brake hose shall be labeled or cut from hose that is labeled, at intervals of not more than 6 inches, measured from the end of one legend to the beginning of the next, in block capital letters and numerals at least one-eighth of an inch high, with the information listed in paragraphs (a) through (e) of this section. The information need not be present on hose that is sold as part of a brake hose assembly or a motor vehicle.

In this case, the same manufacturer's logo that should be on the fitting is printed on all of the hose that is also a part of the same assembly.

3. As an alternative to embossing the logo on one of the fittings, the standard in § 5.2.4 allows a band to be placed around the brake hose. If this alternative were used, the band would be placed on top of the Brake Hose, which already contains the same logo. This too appears to be redundant and does not provide additional information.
4. If the purpose of placing the manufacturer's logo is to allow the vehicle owner to identify the manufacturer, it should be noted that the Brake Hose Assemblies in question are only sold by the vehicle manufacturer's parts division (in this case GM SPO). The vehicle owner, if s/he should desire to know the manufacturer of the Brake Hose Assembly, would first have recourse to the vehicle manufacturer. The vehicle manufacturer in turn could provide this information, if necessary.
5. If the vehicle owner needed to identify the manufacturer of the brake hose assembly for the purposes to replace the assembly, the most natural means of obtaining such a part would be to identify the vehicle model, the model year and the vehicle manufacturer. This is the common methodology that dealers and mechanics use to replace most vehicle parts. Because these particular parts are so specific to a specific vehicle, they are not sold at normal consumer automotive retail outlets. Therefore, the person desiring to replace the Brake Hose Assembly could only find them at a vehicle manufacturer's authorized outlet.
6. There is precedence for finding that label requirements that are required by Crash Avoidance Standards (the 100 series) do not rise to the level of an unreasonable risk to motor vehicle safety. For example, in tire standards it often happens that the tire is either not labeled or even mislabeled. NHTSA has consistently found that knowledgeable mechanics would not be misled in such cases and would install the proper tires even if the tire on the vehicle were mislabeled. In this case the vehicle manufacturer's outlet in most cases this is the automotive dealer would look up the part number based on the model, the model year, and perhaps with specific equipment. The identification of the Brake Hose Assembly manufacturer would not even come into play.

Inconsequential Noncompliance Petition
March 26, 2004

7. The Motor Vehicle Safety Act §30117 (b) requires manufacturers of motor vehicles and tires to maintain records of purchasers; however, no such requirement exists for other types of equipment. In those cases where a brake hose is replaced in a dealership, it might be possible to identify the owners of those vehicles; assuming that the vehicle was not sold after the Brake Hose Assembly was replaced. In other cases where someone replaces the Brake Hose Assembly oneself or after the warranty period has expired uses a garage or a body shop to replace them, it is not likely that the owner could be determined. This means that a percentage of the owners of the total Brake Hoses Assemblies replaced could not be identified for a recall.

8. Finally, Delphi is not aware of any vehicle customer complaints or of any vehicle crashes that are a result of the absence of the logo in question.

Summary

Based on all the above, Delphi requests that NHTSA determine that the noncompliance consisting of the absence of the manufacturer's logo on 1,534 Brake Hose Assemblies sold in the aftermarket be determined to be inconsequential as it relates to motor vehicle safety.

If you have any questions, please do not hesitate to call me at 248 813 3362.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael J. McKale", written in a cursive style.

Michael J. McKale
Manager
Product Regulatory Affairs

Attachment

Attachment I

GL04-005-001

March 1, 2004

National Highway Traffic
Safety Administration
Attn: Mr. Kenneth N. Weinstein
Associate of Safety Assurance (NSA-01)
400 7th Street, SW
Washington, DC 20590

In Re: Notice of Noncompliance, FMVSS 106, Manufacturer's Logo

Dear Mr. Weinstein:

This letter provides notice to the NHTSA as required under 49 CFR Part 573 for a noncompliance with a Federal Motor Vehicle Safety Standard.

Specifically the manufacturer's logo as required by FMVSS 106 § 5.2.4 and § 5.2.4.1 for Brake Hose Assemblies that are sold other than in a motor vehicle was not present on approximately 1534 parts that have been sold in the aftermarket.

A separate Petition for Inconsequential Noncompliance will be filed within the allotted time.

The Part 573 Noncompliance Report as outlined in the Safety Recall Compendium is attached.

If you have any questions, please do not hesitate to call me at 248 813 3362.

Sincerely,

Michael J. McKale
Manager
Product Government Affairs

Noncompliance Report Guide for Equipment
PART 573 Noncompliance Report

On February 25, 2004, Delphi Automotive Systems, L.L.C. came to the determination that a noncompliance with Federal Motor Vehicle Safety Standard No. 106 exists in certain Brake Hose Assemblies as listed below, and is hereby furnishing notification to the National Highway Traffic Safety Administration (NHTSA) in accordance with 49 CFR Part 573 Defect and Noncompliance Reports.

Date this report was prepared: March 1, 2004.

Delphi has assigned no manufacturer's identification code for this recall.

1. Delphi Automotive Systems, L.L.C. is the fabricating manufacturer of this equipment.

Please direct all correspondence to the person who has prepared this report:

Delphi Automotive Systems, L.L.C.
Michael J. McKale
Manager
Product Government Affairs
5825 Delphi Dr.
Troy, MI 48098
Phone: 248 813 3362
FAX: 248 813 1122
Email: michael.j.mckale@delphi.com

I. Identification of Items of Equipment Found To Be Non-Compliant

2. Identify the Items of Equipment Involved in this Recall

Brake Hose Assemblies

- a. Sold in the aftermarket
- b. Specifically designed for the following vehicles:
 - GMT360 Buick Rainier, GMC Envoy, Chevrolet Trailblazer, Olds Bravada
 - GMT370 Buick Rainier, GMC Envoy, Chevrolet Trailblazer, Olds Bravada
 - GMT305 GMC Envoy XUV
 - GMT368 Chevrolet SSR
- c. Produced between January 2001 and February 2004

These Brake Hose Assemblies have the following part numbers:

Current production:

15112267 RF
15112268 LF
15102633 LR
15102634 RR

Previous production:

15070807 LF
15070808 RF
15072709 LR
15072710 RR

II. Identifying the Recall Population

3. The total number of items of equipment potentially containing the noncompliance is 1534 for all part numbers and all Model Years.

Total Number Potentially Affected by the Recall: 1534.

4. 100% of the subject Brake Hose Assemblies that were sold in the aftermarket are non-compliant.

The number of Noncompliant Brake Hose Assemblies was derived by adding all parts that have been shipped to the aftermarket since the start of production and then subtracting the number of parts that have been returned from the aftermarket inventory (1743 total shipped – 209 returned).

The beginning date corresponds to the first date the subject parts were shipped to the aftermarket and the ending date is the last date that noncompliant items were shipped to the aftermarket.

III. Describe the Defect or Noncompliance

5. The subject Brake Hose Assemblies are noncompliant because neither the fittings nor a separately attached band containing the manufacturer's logo is found on the part as required by paragraphs FMVSS 106 S5.2.4 and S5.2.4.1. These paragraphs state:

“Section 5.2.4 Each hydraulic brake hose assembly, except those sold as part of a motor vehicle, shall be labeled by means of a band around the brake hose assembly as specified in this paragraph, or at the option of the manufacturer, by means of labeling as specified in S5.2.4.1.”

“Section 5.2.4.1 At least one end fitting of a hydraulic brake hose assembly shall be etched, stamped or embossed with a designation at least one-sixteenth of an inch high that identifies the manufacturer of the hose assembly....”

Please see the pictures in Appendix I to view the assemblies as produced.

The causes for the Noncompliance are as follows:

1. Prior to the introduction of the subject Brake Hose Assemblies at least one fitting on one end of the assembly was a steel part and all steel parts were embossed with the Delphi logo registered with the NHTSA. Brass fittings, which prior to this introduction were never on more than one end, were not embossed due to the softer materials and the potential of damaging the functionality of the part.
2. While the Engineering drawing required that the part met all requirements of FMVSS 106 the specific requirement of the logo was not spelled out on the print.
3. While all the requirements of FMVSS 106 including the need for a logo were spelled out in a requirements section of the validation test procedure, the test section of the specification did not require that the presence of the logo be checked.

The consequence of the noncompliance condition is that a purchaser of a Brake Hose Assembly, with a part number that is specified for the specific vehicles noted above, will not be able to look at the fitting on either end of the assembly to find a manufacturer's logo, which he would then have to make an inquiry of NHTSA to determine the name and address of the manufacturer should he/she wish to contact the manufacturer. It should be noted, however, that Delphi's logo does appear on the Brake Hose of all the subject Brake Hose Assemblies for all the affected parts. It should further be noted that these particular Brake Hose Assemblies are only sold by a dealership of the vehicle manufacturer and that the dealers can readily determine the appropriate replacement Brake Hose Assembly for the affected vehicles by part number and design..

While there is no warning to the aftermarket customer for this condition, it should be noted that he/she has recourse for notifying the Brake Hose Assembly manufacturer through the vehicle manufacturer via the dealership.

IV. Provide the Chronology in Determining the Noncompliance

6. This section pertains to a defect and is non-applicable in this case.

7. The chronology in determining that a noncompliance exists is as follows:

- a. January 2001 - Start-of-Production for GMT360 Brake Hose Assemblies
- b. Feb. 27, 2002 - Product Engineer discovers that the logo normally found on Brake Hose fittings was not present. However, the tie between the requirement and parts sold in the aftermarket was not made.
- c. Feb. 28, 2002 - QRF # 3235 was issued to require the brass supplier to imprint the logo on the bar stock.

- d. April 18, 2002 – Supplier's response received. Tooling release for stamping die was released (4 week leadtime),
- e. April 18, 2002 – General Motors Product Engineering requested a letter stating that the 2003MY assemblies were compliant. The affirmative letter was issued to GM Engineering because the assemblies were compliant to the vehicle requirements and no connection had been made with GM SPO, the customer's aftermarket organization.
- f. Spring 2002 through Spring 2003 – The Delphi Product Engineer is placed on special assignment.
- g. May 2003 – The same Delphi Product Engineer is asked to participate in a buy decision for the fitting from a new supplier. A CAD drawing is supplied showing the Delphi logo imprint.
- h. October 2003 – The Product Engineer observes that the required identification is not present on the bar stock and notifies the buyer.
- i. November 6, 2003 – The Product Engineer is notified that the stamp has been ordered.
- j. December 2, 2003 – Supplier receives the P.O.
- k. January 13, 2004 – GM Safety Engineering contacts the Product Engineer and requests samples of several Brake Hose Assemblies for NHTSA testing, including the one for the GMT360.
- l. January 16, 2004 – The GM Safety Contact is told about the logo issue on the GMT360 Brake Hose Assembly. The Safety Contact raises the issue of a potential noncompliance for parts sold in the aftermarket in the United States.
- m. January 31, 2004 – Supplier begins to ship bar stock with the requisite logo embossed.
- n. February 20, 2004 – A break point was established for all subject Brake Hose Assemblies in the vehicle plants and available for purchase in the aftermarket to have the logo.
- o. February 25, 2004 – The Vice-Chairman and Chief Technical Officer for Delphi made the determination that a noncompliance to the requirements of FMVSS 106 existed for parts being sent to the aftermarket in the United States.

V. Identify the Remedy

8. The Brake Hose Fitting without and with the embossed logo may be seen in Appendix I and Appendix II respectively.

The distinguishing characteristics of parts with and without the logo are apparent in the pictures.

Although the logo is not required on Brake Hose Assemblies that are installed in vehicles, parts with the embossed logo were sent to the following assembly plants:

A break point of February 20, 2004 in all vehicle assembly plants was established for all vehicles.

All parts that were available for sale in the aftermarket were recalled on February 19, 2004 and have been replaced with compliant parts.

It is Delphi's intention to file a Petition for Inconsequential Noncompliance.

VI. Identify the Recall Schedule

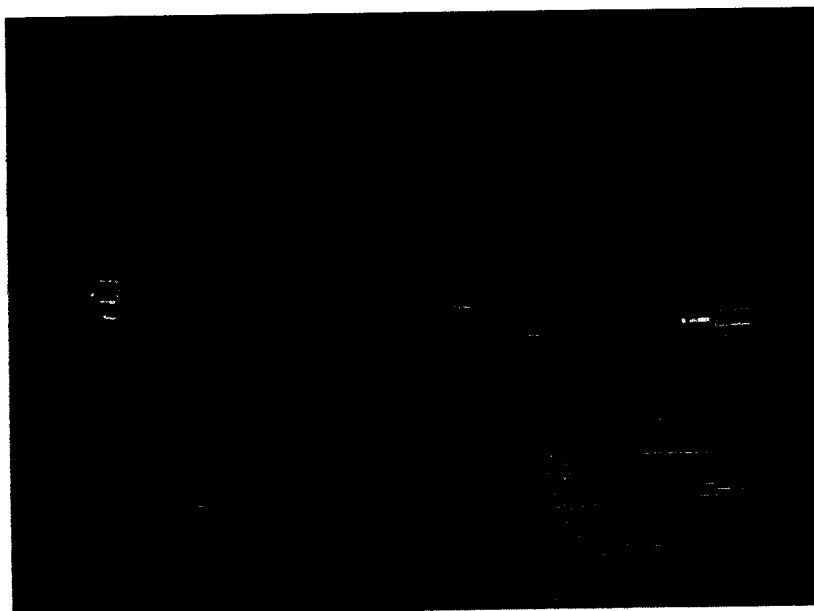
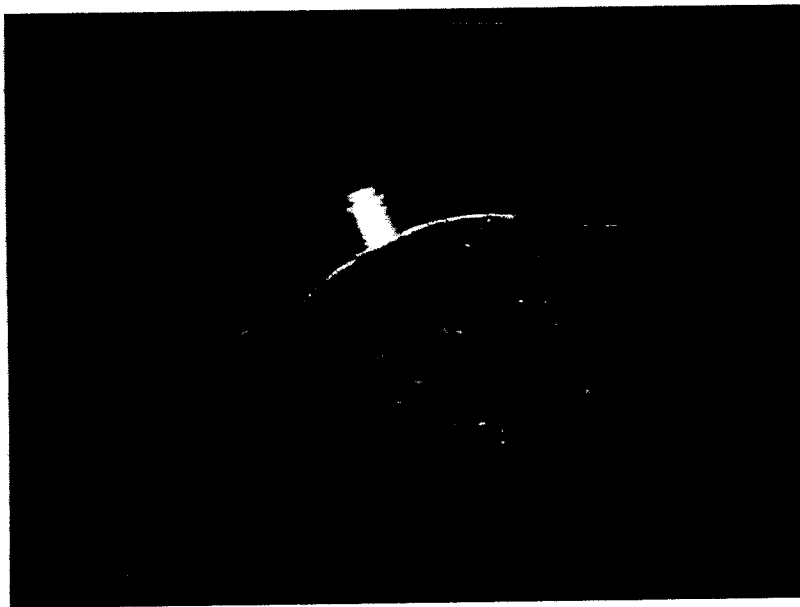
Delphi intends to file a Petition for Inconsequential Noncompliance

VII. Furnish Recall Communications

9. Communications that have been sent to more than one manufacturer, distributor, or purchaser can be found in Appendix III. Future notification documents will be sent to your office for review prior to being mailed.

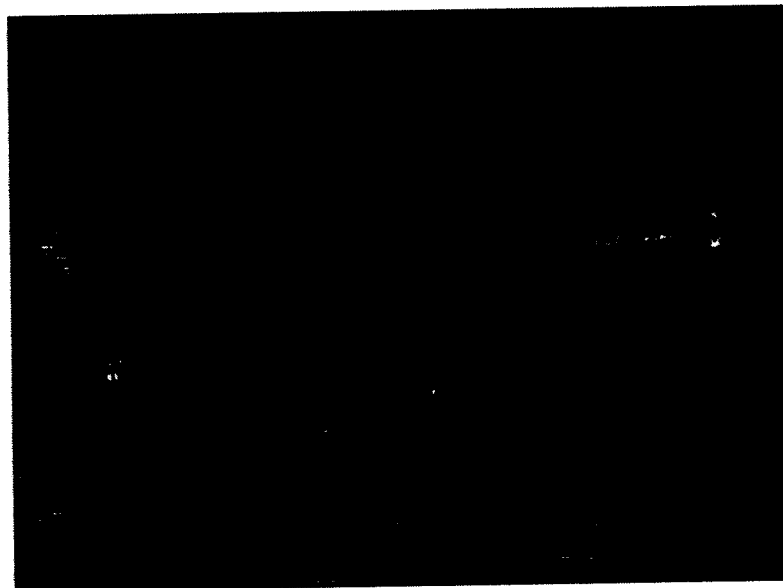
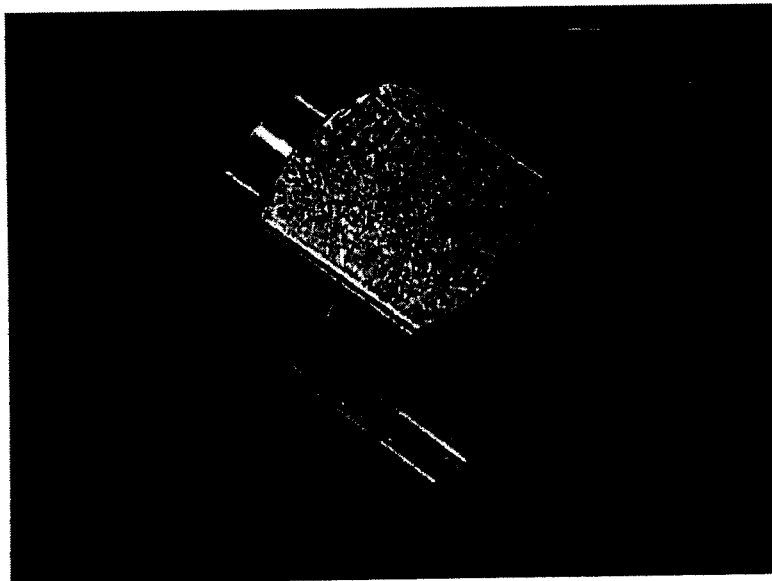
Appendix I

Pictures of Noncompliant Brake Hose Assemblies



Appendix II

Pictures of Compliant Brake Hose Assemblies



Communications

From: Green, Randall L
Sent: Thursday, January 22, 2004 1:52 PM
To: 'christopher.janik@gm.com'
Cc: O'Ryan, Timothy K; Froning, Michael H; 'philip.r.horton@gm.com'
Subject: Potential Noncompliance - Service Brake Hose Assemblies
Chris:

As you requested, I have attached a letter detailing the potential noncompliance. Also attached are Delphi/GM specification drawing 9757160, and fitting part drawings 22163900 and 22163902.

Please let me know if you have questions, or require additional information.

Thanks, Chris.
Randy Green
Delphi Energy & Chassis Systems
randall.l.green@delphi.com
(937) 455-8627 VME Mailbox 5-8627

DELPHI

Date: January 22, 2004

To: Christopher Janik
Field Performance Assessment Engineer
General Motors Corporation

From: Randy Green
Sr. Product Engineer
Delphi Corporation

Subject: Potential Noncompliance of Service Brake Hose Assemblies

Below are the details surrounding the potential noncompliance of certain service brake hose assemblies supplied by Delphi Corporation.

The subject assembly part numbers are as follows:

- GM-15112268, Delphi-22164677
 - GM-15112267, Delphi-22164678
 - GM-15102633, Delphi-22164623
 - GM-15102634, Delphi-22164624
-
- Production of the subject assemblies began in January of 2001. These assemblies are made with a machined brass female end fitting on one end, and a brass or steel block style fitting on the other end for attachment to the caliper.
 - Delphi's brake hose assemblies have been traditionally made with at least one headed steel female end fitting; all Delphi steel female end fittings bear the assembly manufacturer's (Delphi's) stamped identification as required by FMVSS 106. These fittings are not sold outside Delphi, and are used only in Delphi brake hose assemblies.
 - In late Spring 2002 it was discovered that the subject assemblies did not bear the required stamped identification.
 - Delphi took immediate steps to rectify the situation for the subject assemblies as well as for future assemblies employing machined brass female fittings. Because there were not stations available on the machining centers to apply the Delphi stamp, this was accomplished by having the supplier of the brass bar stock imprint the logo on a surface of each stock such that it would not be removed during Delphi's machining operations.
 - In late summer 2003, Delphi realized that, while all other assemblies made with machined brass female fittings were identified correctly, the original assemblies which were to have been corrected had not been.
 - Delphi contacted the brass supplier, who then undertook the design and fabrication of the additional stamp die.
 - As of this writing, the stamp die has just been received by the brass supplier, who will begin imprinting Delphi stock immediately.
 - It is anticipated that assemblies made on or after February 6, 2004 will bear the correct assembly manufacturer's identification.

Please find below photographs of a brass female fitting which has been correctly identified (left), and one which has not (right).



Logo here



Logo will be here

The hydraulic brake hose used to manufacture the subject assemblies is produced by Delphi, and is labeled in accordance with FMVSS 106. Each hose is clearly identified with Delphi's registered manufacturer's code, "AV". Additionally, each Delphi hose contains a black "marker" yarn (as required by SAE J1401) which is braided into the outer reinforcement layer, and which can be clearly identified upon removal of the protective outer hose cover.

Only Delphi hose has been used to produce the subject assemblies, and those assemblies are produced only by Delphi. Delphi does not sell uncoupled hose to aftermarket assemblers other than for a specific case – where the aftermarket manufacturer also produced the OEM assembly from Delphi hose. Because of the foregoing, any assemblies sold as the listed part numbers, and containing Delphi hose, have to have been manufactured by Delphi.

Each Delphi assembly drawing refers to specification drawing number 9757160. This specification drawing (attached) states explicitly that all Delphi-manufactured brake hose assemblies shall conform to the requirements of FMVSS 106; because of this, the requirement for the Delphi logo does not appear elsewhere on assembly drawings, nor does it appear on component fitting drawings.

From: keith.rutledge@gm.com
Sent: Friday, February 06, 2004 1:39 PM
To: Green, Randall L
Subject: Re: Stock Quantity of Service Brake Hoses

Randy,

Would this small QTY of brake hoses be a hassle to rework. These are all of the service part @ SPO. Please Respond.

Thanks

Keith

----- Forwarded by Keith Rutledge/US/GM/GMC on 02/06/2004 01:35 PM -----

	Robert Vinton	
	02/06/2004 01:33	
	PM	

To: Keith Rutledge/US/GM/GMC@GM
cc:
Subject: Re: Stock Quantity of Service Brake Hoses(Document link: Keith Rutledge)

Keith,

This is a pretty small quantity. They could be scrapped if reworking them to add an ID would be to complicated.

Bob

----->
Keith Rutledge |
02/06/2004 10:00 |
AM |
----->

>-----|
To: Robert Vinton/US/GM/GMC, Lisa Devoe/US/GM/GMC |
cc: |
Subject: Stock Quantity of Service Brake Hoses |
>-----|

FYI,

----- Forwarded by Keith Rutledge/US/GM/GMC on 02/06/2004 09:59 AM -----

----->
Michael |
Marentette |
02/06/2004 09:38 |
AM |
----->

>-----|
To: Keith Rutledge/US/GM/GMC@GM, Christopher Janik/US/GM/GMC@GM |
cc: |
Subject: Stock Quantity of Service Brake Hoses |
>-----|

Gentlemen,

As I stated in the conference call, here are the quantities of the affected brake hoses we have for service.

Part #	Qty
15112268	58
15112267	43
15102633	79
15102634	29

Thank you,
Mike Marentette
Service Part Engineer
Brakes/Wheels/Tires

GL04-005-012

PCC - East., 1999 Centerpoint Pkwy., Pontiac, MI 48341-3147
Mail Code: 483-550-138
Phone: (248) 753-9791
Fax: (248) 753-7573

RE: Logo Stamp on Brass Fittings
From: Green, Randall L
Sent: Sunday, February 08, 2004 2:34 PM
To: Berner, Philip I; Goyzueta, Roberto; Hoblit, Lisa; Phillpotts, Scott
Cc: Froning, Michael H; Williams, Leon T; O'Ryan, Timothy K; Joiner, Eric T; keith.rutledge@gm.com
Subject: FW: Logo Stamp on Brass Fittings

Importance: High

All:

See Keith's note below. He has decided to issue a TEWO to cover the transition period wherein some assemblies will have fittings with logos and some assemblies will have fittings without logos.

The TEWO Number is 292306.

Randy

-----Original Message-----

From: keith.rutledge@gm.com [mailto:keith.rutledge@gm.com]

Sent: Sun 2/8/2004 12:29 PM

To: Green, Randall L

Cc: Goyzueta, Roberto

Subject: RE: Logo Stamp on Brass Fittings

Randy,

In order to track this situation, this needs to be tracked through a temp work order. The workorder is already drafted and should go into implementation stage by end of tomorrow (2/9/04). The EWO number is 292306 (BFFSR). Please pass over to all who were involved in the previous email. A copy will be forwarded once it goes into the implementation status.

Thanks
Keith